

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action of November 3, 2005

REMARKS/ARGUMENTS

The office action mailed November 3, 2005, has been carefully reviewed and these remarks are responsive to that office action. Reconsideration and allowance of this application are respectfully requested.

Claims 1-4, 6-28 remain in this application. Claim 5 has been canceled without prejudice or disclaimer. Claims 1, 13, 14, 17, 22, 24, 27, and 28 are currently amended.

Claims 1, 13, 17, 22 and 27 were rejected under 35 U.S.C. 112, first paragraph, for failing to comply with the written description requirement. These claims have been amended so that they no longer recite "controlling a target computer through a browser without the target computer transmitting to the wireless-client device data that specifies the content of the target computer's GUI-display screen." The rejections under 35 U.S.C. 112, first paragraph, are, therefore, overcome.

Claims 1-4 and 6-28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Muta, in view of Abdulrahiman et al (Pub. No. 2003/0023671) and Smethers (Pub. No. 2003/0040340).

Muta, in view of Abdulrahiman and Smethers, do not establish *prima facie* obviousness of claim 1 because these references, either alone or in combination, do not disclose, teach, or suggest that "the remote-control user-interface elements include virtual keyboard keys, wherein a user activating at least one of the virtual keyboard keys causes a message to be sent to the target computer, wherein the message specifies at least one keyboard event to be simulated on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the virtual keyboard keys was activated."

Claim 1 is directed to a method of allowing a target computer to be remotely controlled through a browser, the method comprising: accepting a connection from the browser, wherein the browser is executed by a wireless-client device; downloading to the browser a web page containing remote-control user-interface elements, wherein the remote-control user-interface elements include virtual keyboard keys, wherein a user activating at least one of the virtual keyboard keys causes a message to be sent to the target computer, wherein the message specifies at least one keyboard event to be simulated on the target computer, wherein the at least one

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

keyboard event to be simulated is based upon which of the virtual keyboard keys was activated; receiving the message that specifies the at least one keyboard event to be simulated on the target computer; and simulating the at least one keyboard event specified by the received message.

Muta discloses a system for using a remote computer (called a master controller) to remotely control another computer (called a slave server). The master controller displays the slave server's GUI display screen so that an end user can interact with the slave server's GUI display at the master controller. This requires a relatively large amount of video data to be transferred between the slave server and the master controller. Transmission of such video data is undesirable when the master controller is a wireless-client device, such as a cellular phone.

Claim 1 includes the subject matter previously recited in claim 5, namely, "the remote-control user-interface elements comprise virtual keyboard keys." The final office action mailed November 3, 2005, states that the keyboard keys of the master controller are "virtual keys to the slave server."

Claim 1 explicitly recites "downloading to the browser a web page containing remote-control user-interface elements, wherein the remote-control user-interface elements include virtual keyboard keys." As such, Muta, including the actual keyboard keys of the master controller, does not disclose, teach, or suggest virtual keyboard keys that are "downloaded to the browser," as is explicitly recited in claim 1.

Further, Muta does not teach or suggest that "a user activating at least one of the virtual keyboard keys causes a message to be sent to the target computer, wherein the message specifies at least one keyboard event to be simulated on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the virtual keyboard keys was activated." In sharp contrast, Muta discloses that a user activates an HTML link at the master controller to cause remote controlling software to be downloaded from the slave server to the master controller. Column 9, lines 6-35, of Muta discusses downloading the remote-controlling software from the slave server to the master controller. Column 9, lines 36-61, discusses using the remote-controlling software to remotely control the slave server from the master controller. As such, Muta does not disclose, teach, or suggest "a user activating at least one of the virtual keyboard keys causes a message to be sent to the target computer, wherein the message specifies

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

at least one keyboard event to be simulated on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the virtual keyboard keys was activated."

For at least the foregoing reasons, claim 1 is in condition for allowance.

Claim 13 contains limitations that are analogous to the limitations of claim 1 discussed above. Muta, in view of Abdulrahman and Smethers, do not establish *prima facie* obviousness of claim 13 because these references, either alone or in combination, do not disclose, teach, or suggest that "the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a message to be sent to the keyboard event server, wherein the message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

Claim 13 is directed to a method of using a wireless-access browser to remotely control a target computer, the method comprising: connecting to a wireless-access gateway to establish a wireless-access-browser connection to a keyboard event server running on the target computer; using the wireless-access browser to download from the keyboard event server a web page containing remote-control user-interface elements, wherein the wireless-access browser is executed by a wireless-client device and wherein the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a message to be sent to the keyboard event server, wherein the message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated; and sending to the keyboard event server the message that specifies the at least one keyboard event to be simulated by the keyboard event server on the target computer.

As discussed above, Muta discloses a system for using a remote computer (called a master controller) to remotely control another computer (called a slave server). The master controller displays the slave server's GUI display screen so that an end user can interact with the slave server's GUI display at the master controller. This requires a relatively large amount of video data to be transferred between the slave server and the master controller. Transmission of

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

such video data is undesirable when the master controller is a wireless-client device, such as a cellular phone.

Muta does not teach or suggest that "the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a message to be sent to the keyboard event server, wherein the message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated." In sharp contrast, Muta discloses that a user activates an HTML link at the master controller to cause remote controlling software to be downloaded from the slave server to the master controller. Column 9, lines 6-35, of Muta discusses downloading the remote-controlling software from the slave server to the master controller. Column 9, lines 36-61, discusses using the remote-controlling software to remotely control the slave server from the master controller. As such, Muta does not disclose, teach, or suggest that "the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a message to be sent to the keyboard event server, wherein the message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

For at least the foregoing reasons, claim 13 is in condition for allowance.

Claim 17 contains limitations that are analogous to the limitations of claims 1 and 13 discussed above. Muta, in view of Abdulrahiman and Smethers, do not establish prima facie obviousness of claim 17 because these references, either alone or in combination, do not disclose, teach, or suggest that "the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a wireless protocol-encoded (WP-encoded) message to be sent to the wireless-access gateway, wherein the WP-encoded message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

Claim 17 is directed to a method of allowing a wireless-access browser to remotely control a target computer, the method comprising: establishing, through a wireless-access gateway, a wireless-access-browser connection to a keyboard event server running on the target computer; downloading through the wireless-access gateway from the keyboard event server to the wireless-access browser a web page containing remote-control user-interface elements, wherein the wireless-access browser is executed by a wireless-client device and wherein the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a wireless protocol-encoded (WP-encoded) message to be sent to the wireless-access gateway, wherein the WP-encoded message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated; converting the wireless protocol-encoded (WP-encoded) message received from the wireless-access browser at the wireless-access gateway into an HTTP message; and transmitting the HTTP message from the wireless-access gateway to the keyboard event server.

As discussed above, Muta discloses a system for using a remote computer (called a master controller) to remotely control another computer (called a slave server). The master controller displays the slave server's GUI display screen so that an end user can interact with the slave server's GUI display at the master controller. This requires a relatively large amount of video data to be transferred between the slave server and the master controller. Transmission of such video data is undesirable when the master controller is a wireless-client device, such as a cellular phone.

Muta does not teach or suggest that "the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a wireless protocol-encoded (WP-encoded) message to be sent to the wireless-access gateway, wherein the WP-encoded message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

markup language select elements was activated." In sharp contrast, Muta discloses that a user activates an HTML link at the master controller to cause remote controlling software to be downloaded from the slave server to the master controller. Column 9, lines 6-35, of Muta discusses downloading the remote-controlling software from the slave server to the master controller. Column 9, lines 36-61, discusses using the remote-controlling software to remotely control the slave server from the master controller. As such, Muta does not disclose, teach, or suggest that "the remote-control user-interface elements include wireless markup language select elements, wherein a user activating at least one of the wireless markup language select elements causes a wireless protocol-encoded (WP-encoded) message to be sent to the wireless-access gateway, wherein the WP-encoded message specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

For at least the foregoing reasons, claim 17 is in condition for allowance.

Claim 22 contains limitations that are analogous to the limitations of claims 1, 13, and 17 discussed above. Muta, in view of Abdulrahiman and Smethers, do not establish prima facie obviousness of claim 22 because these references, either alone or in combination, do not disclose, teach, or suggest "remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the keyboard event server a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

Claim 22 is directed to a mobile terminal that allows an end user to remotely control a target computer, the mobile terminal comprising: a wireless-access browser that downloads, from a keyboard event server that is executing on the target computer, remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the keyboard event server a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at

Appl. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

least one wireless markup language select elements was activated; and wherein, the mobile terminal sends to the keyboard event server the message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer.

As discussed above, Muta discloses a system for using a remote computer (called a master controller) to remotely control another computer (called a slave server). The master controller displays the slave server's GUI display screen so that an end user can interact with the slave server's GUI display at the master controller. This requires a relatively large amount of video data to be transferred between the slave server and the master controller. Transmission of such video data is undesirable when the master controller is a wireless-client device, such as a cellular phone.

Muta does not teach or suggest "remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the keyboard event server a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated." In sharp contrast, Muta discloses that a user activates an HTML link at the master controller to cause remote controlling software to be downloaded from the slave server to the master controller. Column 9, lines 6-35, of Muta discusses downloading the remote-controlling software from the slave server to the master controller. Column 9, lines 36-61, discusses using the remote-controlling software to remotely control the slave server from the master controller. As such, Muta does not disclose, teach, or suggest "remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the keyboard event server a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

For at least the foregoing reasons, claim 22 is in condition for allowance.

Claim 27 contains limitations that are analogous to the limitations of claims 1, 13, 17, and 22 discussed above. Muta, in view of Abdulrahman and Smethers, do not establish prima facie obviousness of claim 27 because these references, either alone or in combination, do not

Appn. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

disclose, teach, or suggest "remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the wireless-access gateway a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

Claim 27 is directed to a remote-control system comprising: a wireless-access gateway; a target computer that is running a keyboard event server and that is coupled to the wireless-access gateway; a mobile terminal running a wireless-access browser that receives remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the wireless-access gateway a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated; and wherein the keyboard event server receives through the wireless-access gateway from the wireless-access browser the message that specifies the at least one keyboard event to be simulated; and the keyboard event server simulates on the target computer the at least one keyboard event specified by the message received through the wireless-access gateway.

As discussed above, Muta discloses a system for using a remote computer (called a master controller) to remotely control another computer (called a slave server). The master controller displays the slave server's GUI display screen so that an end user can interact with the slave server's GUI display at the master controller. This requires a relatively large amount of video data to be transferred between the slave server and the master controller. Transmission of such video data is undesirable when the master controller is a wireless-client device, such as a cellular phone.

Muta does not teach or suggest "remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the wireless-access gateway a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select

Appn. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

elements was activated." In sharp contrast, Muta discloses that a user activates an HTML link at the master controller to cause remote controlling software to be downloaded from the slave server to the master controller. Column 9, lines 6-35, of Muta discusses downloading the remote-controlling software from the slave server to the master controller. Column 9, lines 36-61, discusses using the remote-controlling software to remotely control the slave server from the master controller. As such, Muta does not disclose, teach, or suggest "remote-control user-interface elements that include wireless markup language select elements that, upon user activation, cause the mobile terminal to send to the wireless-access gateway a message that specifies at least one keyboard event to be simulated by the keyboard event server on the target computer, wherein the at least one keyboard event to be simulated is based upon which of the at least one wireless markup language select elements was activated."

For at least the foregoing reasons, claim 27 is in condition for allowance.

Claims 2-4, 6-12, 14-16, 18-21, 23-26, and 28 properly depend on one of claims 1, 13, 17, 22, and 27. Claims 2-12, 14-16, 18-21, 23-26, and 28 are, therefore, also in condition for allowance.

Appln. No.: 10/034,260
Amendment dated February 3, 2006
Reply to Office Action November 13, 2005

CONCLUSION

If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicant respectfully submits that this application is in condition for allowance, and respectfully requests issuance of a notice of allowance.

Respectfully submitted,

BANNER & WITCOFF LTD.

Dated: February 3, 2006

By:



William J. Klein

Registration No. 43,719

10 S. Wacker Dr., Suite 3000
Chicago, IL 60606
Tel: (312) 463-5000
Fax: (312) 463-5001

WJK/ab